

Article

# Sustainable Heritage Management: Exploring Dimensions of Pull and Push Factors

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**Abstract:** While determining sustainable heritage development, it is important to consider how heritage satisfies human needs. The purpose of this study is to explore the pull and push factors in heritage tourism. This study generated 38 initial items of pull factor and 18 initial items of push factor toward heritage tourism to assess the significance of items influencing people's decision to visit heritage sites. The study obtained 332 valid questionnaires to implement exploratory factor analysis to capture the pull and push factors. Four pull factors with 15 items and 2 push factors with 9 items were extracted. The pull factors consisted of heritage architecture, art activity, wide nature, and regional attraction, while the push factors comprised recreational benefits and long-term values. The study suggests that the heritage's outdoor environment should be planned through wide landscaping and natural elements, while art activities can be promoted to enhance attractiveness.

**Keywords:** adaptive heritage reuse; exploratory factor analysis; push–pull theory; heritage tourism; heritage architecture; natural landscape

## 1. Introduction

Heritage is an inspiring resource to revisit past legacies, highlight the present way of life, and develop culture inheritance [1]. The protection of heritage sites has become a significant global issue. Maintenance costs are often a major burden in heritage management [2]. The satisfaction of human needs is an important perspective in heritage protection [3]. Adaptive reuse of heritage architecture is a sustainable method to add value and function to match modern users' requirements, substitute heritage demolition, and modify an old structure [4–6]. In light of the financial burden involved, it is imperative to develop heritage architecture into tourism attractions on a self-finance basis to satisfy visitors' value, obtain economic benefits, and protect and maintain the site without reducing its historic appeal [7]. Heritage recreation and conservation can be complementary to augment visitors' experience [8]. Several heritage sites applied adaptive reuse to maintain the structure, create new value, and achieve the dual purpose of tourism and heritage preservation, covering both urban [5] and rural heritages [9,10].

Adaptive reuse of heritage architecture is not always successful because managers often ignore user value and strategies to attract tourists [11], although tourists are considered to be major consumers in adaptive heritage reuse. In several countries, heritage has become an important tourism composition [12], serving as a channel to attract tourists, obtain economic benefits, and protect heritage sites. Some studies support the concept that heritage sites have the potential to become popular cultural venues to attract tourists [13]. Tourism contributes to a new meaning in heritage [14]. However, heritage management has a larger goal of focusing on architecture preservation. Tourists are easily ignored in heritage management [15]. Heritage tourism behavior is related to visitors' perception of a heritage venue [16]. Addressing tourists' unpleasant experiences is an important challenge [17], and decisions taken as part of heritage tourism management should closely relate to tourists' satisfaction [18] and

values [15]. Tourism and heritage managers should assess how heritage sites attract tourists [19]. This study focused on heritage appeal to attract tourists and achieve sustainable heritage management.

Past studies have not dealt with how heritage sites can appeal to tourists, although some studies point to certain attractive features of heritage [13,15,19], including heritage type, ambience, uniqueness, marketing, events, representativeness, product, activity, accessibility, multiple values, and so forth [13,19]. However, not all factors attract tourists, such as art galleries, audiovisual effects, and traveling exhibitions [15]. The basis of the push–pull theory can be used to elucidate the attractive factors of heritage based on tourists' decision to visit the place. Tourism decisions depend on external pulled forces of tourism destination and personal internal pushed forces [20–22]. Pull factors are the attractive attributes of tourism destinations [22,23], such as environmental elements, nature, and activities, while the push factors include intrinsic motivation in tourism [22–24], such as retreat, novelty, relaxation, family interaction, and so forth. Understanding these factors can help researchers realize heritage attractiveness, encourage decision makers to integrate successful push and pull factors [24], and achieve sustainable management.

Although a large number of attractive features have been identified in past references, only a few studies have highlighted the common attractive factors in heritage tourism. A pilot study by Tu [11] generalized the overall attractive factors of adaptive reuse of heritage architecture through visitors' interviews of successful cases of adaptive heritage reuse. Tu [11] captured four pull dimensions, including heritage reuse, activities of reuse, and natural and regional environments. Tu [11] also captured four push intrinsic motivations, including self-growth, health, and social and cultural benefits. Tu [11] indicated several nonarchitectural attractive factors in heritage tourism from the viewpoint of adaptive reuse, including multiple activity and natural and regional environments. Although Tu [11] generalized the pull and push factors and tried to provide a factor structure, there were certain limitations such as lack of quantitative steps to explore the common determining factors.

Some studies have tried to examine the sustainable factors and theoretical framework for achieving sustainable heritage tourism [25]. Meanwhile, only a few studies focused on tourists' considerations, although factors that attract tourists should be identified for heritage management. A quantitative study is imperative to explore the common pull and push factors from tourists' perspective. Exploratory factor analysis is an effective method to capture common factors of specific issues to generate explored theory framework [26,27]. The purpose of this study is to explore the pull and push factors in heritage tourism from the viewpoint of adaptive reuse through exploratory factor analysis.

## 2. Literature Review

### 2.1. Push–Pull Theory

The push–pull factors of tourism motivation are important to assess tourist behavior [20–22,28]. The pull factor is the travel decision and motivations caused by the attractive attributes of a tourism destination [21–23,29]. Several studies have explored the pull factors in tourism destination. Accessibility is considered a general pull factor [22,30–33]. However, attractive resources can balance the effects of accessibility although the latter is one of the pull factors to influence travel decisions [30]. Attractive resources and accessibility should be taken into consideration while making tourism decisions. Several studies provided multiple and essential pull factors, such as social space, natural and cultural elements, events, physical facilities, food service, night activities, and so forth [21,34–37].

The push factor is a socio-psychological need and an invisible force that encourages tourists to travel [20,23,28,29,36]. Most of the push factors are intrinsic motivations [24], such as relaxation, self-esteem, health, social interaction, interests, novelty, knowledge, prestige, adventure, cultural value, exercise, and so forth [22,24,28,29,31,32,38]. Prior psychological needs encourage travel decisions, and they often precede the influence of the pull factors [20]. Therefore, push factors should be incorporated in the theoretical framework while considering the attractiveness of adaptive heritage reuse.

## 2.2. Pull and Push Factors in Heritage Tourism

Different types of tourism have diverse pull factors, such as natural and cultural attractions [39,40]. Past studies pointed to several attractive factors of heritage [13,15,19,41,42]. Li and Lo [19] explored the tourism potential of heritage sites through various factors, including ambience, popularity of the area, prominent symbols, interesting background, events, representativeness, regional tourism activity, cultural destination, amenity, accessibility, heritage type, and so forth. McKercher et al. [13] indicated that the attributes of popular cultural tourism attractions are product, experiential, uniqueness, marketing, culture, and leadership. Bonn et al. [41] indicated that heritage status, cultural meaning, history, ambience, and layout comprise the pull factors. Meanwhile, Calver and Page [8] stated that the overall service predicted the levels of enjoyment and behavior in heritage tourism. Alazaizeh et al. [15] mentioned that certain environmental factors have no significant effect on visitors' assessment, such as increasing the number of replicas, the presence of a gallery, audiovisual effect, and traveling exhibitions.

A study by Tu [11] captured the pull and push factors of heritage tourism with successful adaptive reuse cases in Taiwan through interviews with visitors, and highlighted four pull factors, including heritage reuse environments (heritage architecture, cultural atmosphere, heritage style, well-preserved heritage, history and culture, and heritage beautification), activities of reuse environments (food service, static art activities, walking, family activities, and dynamic art programs), natural environments (leisure, natural, and expansive landscape, a well-maintained and safe atmosphere), and regional environments (surrounding tourist attractions, accessibility to transportation, and historical street). According to a study by Tu [11], the pull factors of heritage tourism with adaptive reuse cases not only included heritage factors, but also covered the pull factors of general tourism. The pull factors of activity and natural and regional environments should be covered in the study of heritage tourism.

Heritage travel motivation has a significant influence on visitor engagement, experience, and heritage destination image [43]. In the push factors of heritage tourism, Li and Lo [19] assessed multiple values in heritage and indicated that some cases have aesthetic, historical, educational, social, or scientific value. Barton et al. [44] indicated that the major motivating factors for walking at natural heritage sites are enjoying fresh air, appreciating the scenery, observing wildlife, performing exercises, for heritage value, walking the dog, meeting family and friends, playing games, or for recreation. Tu [11] also captured four pushed intrinsic motivations, including self-growth (learning, growth, rethinking, work motivation, and achievements), health benefits (positive emotions, coping, good life, and health maintenance), social benefits (healthy relationships and memories), and cultural benefits (cultural inheritance and a sense of belonging). Overall, the push factors of heritage tourism included several push factors of general tourism, except cultural benefits. The push factors of recreational and health benefits should be covered in the study of heritage tourism.

## 3. Materials and Methods

### 3.1. Instrument

Tu [11] generalized themes and subthemes for the attractiveness of adaptive heritage reuse from open-ended interviews of 90 visitors. The pull factors included 4 themes (heritage, activity, and natural and regional environments) and 19 subthemes (heritage architecture, cultural atmosphere, heritage style, well-preserved heritage, history and culture, heritage beautification, food service, static art activities, walking, family activities, dynamic art activities, leisure, natural landscape, wide landscape, well-maintained and safe environment, surrounding tourist attractions, access to transportation, and historical street) [11]. The push factors comprised 4 themes (self-growth, health, and social and cultural benefits) and 13 subthemes (learning, growth, rethinking, work motivation, achievement, positive emotion, coping, good life, health maintenance, healthy relationships, memories, cultural inheritance, and a sense of belonging) [11].

According to the study by Tu [11], the research generated 38 initial items of pull factor and 18 initial items of push factor toward heritage tourism from the perspective of adaptive reuse. The initial

question was “If you want to visit heritages, please evaluate the importance of each item that influences your decision.” This study used a 7-point scale, with 7 being “very important” to 1 being “very unimportant” to assess the significance of each item for influencing the decision to visit heritages. Some studies also used the importance level to explore attractiveness factors [38]. A list of well-known and popular heritage cases in Taiwan was used to help respondents understand heritage and assess the study items because some respondents did not clearly comprehend heritage cases. The questionnaire comprised a pool of 56 items and 8 items with demographics, including gender, age, marital status, educational level, monthly income, occupation, frequency of visiting heritage sites in the past year, and travel partner.

### 3.2. Data Collection

The National Cheng Kung University Human Research Ethics Committee assessed and approved the research ethics of this study (approval number: NCKU HREC-E-107-119-2). Data were collected on 13–14 April 2019, at a popular recreational site, Calligraphy Greenway in Taichung City in Central Taiwan, a metropolitan park that attracts tourists of all age groups. Convenience sampling was used to capture each age group in Calligraphy Greenway. The study subjects were adults aged over 20, in line with the research ethics. The questionnaire participant information sheet was used to explain to study subjects the purpose, content, rights, and rewards of participating in this study. The subjects received a gift after completing the questionnaire.

A suitable sample size of 300 was selected to implement exploratory factor analysis and reduce subject variance [27,45,46]. The researchers collected 398 questionnaires, with 332 considered valid (effective response rate: 83.4%) after eliminating 58 questionnaires with missing values and 10 with similar answers for all items. All the respondents included in this study were locals (Taiwanese). The proportion of female subjects (53.6%) was higher than males (46.4%) (Table 1). The subjects included adults and the elderly, with 20- to 29-year-olds (41.9%) and 30- to 39-year-olds (29.2%) accounting for a major proportion. Half of the subjects were single (53.9%) and a quarter were married with children (39.5%). In addition, half of the subjects had gone to a university (58.1%) and half reported a monthly income of less than US\$666 (NT\$20,000). The subjects were from all occupations, with blue collar workers (26.1%) and professionals (20.5%) accounting for a major proportion of the sample. The mean (S.D.) of frequency of visiting heritage sites last year was 3.4 (1.3), implying ordinary frequency. A major section of subjects belonged to the ordinary frequency segment, or visited a heritage site in the past year (39.5%). The major travel partner was family (55.7%) and friends (36.1%).

**Table 1.** The sociodemographics of study subjects.

Sociodemographics	N	%
Gender		
Male	154	46.4
Female	178	53.6
Age (years)		
20–29	139	41.9
30–39	97	29.2
40–49	46	13.9
50–59	26	7.8
60 or older	24	7.2
Marital status		
Single	179	53.9
Married with no children	15	4.5
Married with children	131	39.5
Other	7	2.1

Table 1. Cont.

Sociodemographics	N	%
Education level		
Primary	4	1.2
High school	47	14.2
College	36	10.8
University	193	58.1
Postgraduate	52	15.7
Monthly income (excluding fixed expenses)		
Less than US\$333 (NT\$10,000)	93	28.0
US\$334–666 (NT\$10,001–20,000)	86	25.9
US\$667–1000 (NT\$20,001–30,000)	54	16.3
US\$1001–1333 (NT\$30,001–40,000)	38	11.4
US\$1334–1666 (NT\$40,001–50,000)	27	8.1
More than US\$1667 (NT\$50,001)	34	10.2
Occupation		
Administrator	16	4.8
Professional	68	20.5
Technician	35	10.5
Clerk	34	10.2
Blue collar worker	84	26.1
Housewife	25	7.5
Retired	21	6.3
Other	49	14.8
Frequency of visiting heritage last year		
Very infrequent	37	11.1
Infrequent	45	13.6
Somewhat infrequent	72	21.7
Ordinary	131	39.5
Somewhat frequent	35	10.5
Frequent	11	3.3
Very frequent	1	0.3
Travel partner		
Own	22	6.6
Family	185	55.7
Friend	120	36.1
Other	5	1.5

### 3.3. Data Analysis

Exploratory factor analysis was used to examine the theoretical framework of the heritage's recreational attractiveness, including the theoretical framework of the pull and push factors. This analysis is a useful abductive method of theory generation to capture latent variables of concept through the principle of common cause [26,27]. According to Williams et al. [27], this study adopted principal components analysis with Varimax rotation and eigenvalues higher than one to extract the factors, and employed Kaiser–Meyer–Olkin (KMO) and Bartlett's test to assess the suitability of the data for factor analysis. This study used multiple extraction criteria to extract the factors since it was more suitable than applying a single criterion [27]. First, factor loading greater than 0.5 implies that it is critical for practice and interpretative purposes [47]. The priority criterion was deletion of factor loadings below 0.5. Second, high cross-loadings were candidates for deletion to distinguish different concepts [47]. The cross-loadings 0.3 to 0.4 were considered as candidates for deletion. Cross-loadings greater than 0.4 were considered high and were eliminated. Third, Cronbach's  $\alpha$  greater than 0.7, item-to-total correlations greater than 0.5, and interitem correlations greater than 0.3 were used to assess internal consistency [47]. The Cronbach's  $\alpha$  lower than 0.7, lower item-to-total correlations, and lower interitem correlations were considered as candidates for deletion. Finally, each factor had at least two items to attribute meaningful interpretation and theme [27]. According to the multiple

extraction criteria, each step of analysis deleted one item and performed recalculation until each factor was attributed to clear and meaningful themes. Harman's single-factor test was used to test common method bias [48,49].

#### *3.4. Limitations of this Study*

The limitations of this study need to be discussed. The study did not select multiple heritage sites for the survey, while the lone heritage site selected lacked potential attractive factors. Different heritage sites present diverse attractive features. In addition, the survey method employed was not suitable for exploring the overall attractiveness feature of the heritage sites and achieving the purpose of this study. This study assessed the importance of the overall attractiveness features at a major recreational site in Taichung City in Central Taiwan. The method was limited by external validity to directly apply the results in actual heritage sites. Future studies should use the same assessed factors and items to survey heritage sites and recheck the suitability of the factor structure.

This study was also limited by the fact that only locals were surveyed, meaning the results could not be generalized for other cultural populations, such as nationals and foreigners. Different cultural populations may produce different push-pull factors. Therefore, future studies should include different cultural populations to test the external validity.

### **4. Results**

#### *4.1. Exploratory Factor Analysis for Pull Factors of Adaptive Heritage Reuse*

The primary exploratory factor analysis identified the initial eight factors from 38 pull items of heritage tourism (Table 2). Harman's single-factor test showed that one highest factor explained 34.96% variance indicating lower common method bias. The KMO value was 0.92. Bartlett's test was significant at a level of 0.000. The cumulative percentage of variance was 68.34%. Cronbach's  $\alpha$  of eight factors ranged from 0.52 to 0.91, indicating that reliability should be improved. For clearing and obtaining meaningful themes, a series of recalculations and deletions reduced the number of items from 38 to 15 and extracted four factors (Table 3). Nine items were deleted due to factor loadings of below 0.5, while 14 items were eliminated due to cross-loadings greater than 0.3. After a series of deletions, the KMO value of 0.85 and significant Bartlett's test at a level of 0.000 indicated that the data were adequate for factor analysis. The cumulative percentage of variance reached 74.00%. Cronbach's  $\alpha$  of four factors ranged from 0.83 to 0.90, indicating good reliability. The factor loadings of all the items were greater than 0.70, indicating practical significance.

**Table 2.** The initial exploratory factor analysis for pull factors of heritage tourism.

Items	Mean (SD)	Initial Factor and Factor Loading								Eigenvalue	Variance Explained (%)	Cronbach's $\alpha$
		1	2	3	4	5	6	7	8			
Initial factor 1										13.29	34.96	0.91
01: The heritage's outdoor environment is very natural.	5.54(1.29)	0.73	0.11	0.14	0.10	0.21	0.07	0.10	0.14			
02: The heritage's environment is elegant.	5.72(1.14)	0.69	-0.01	0.26	0.06	0.23	0.10	0.20	0.09			
03: The heritage's outdoor environment has several natural elements.	5.37(1.23)	0.68	0.24	0.11	0.22	0.17	0.12	0.09	0.12			
04: You can view the natural landscape.	5.03(1.38)	0.66	0.33	0.05	0.33	0.16	0.06	0.11	-0.07			
05: The heritage's outdoor environment is wide.	5.13(1.35)	0.65	0.43	0.10	0.34	0.16	0.11	0.06	-0.02			
06: The view of heritage's outdoor landscape is wide.	5.11(1.30)	0.63	0.41	0.12	0.35	0.18	0.09	0.07	-0.07			
07: The heritage's environment is tidy.	6.02(1.04)	0.59	0.04	0.43	0.03	0.10	0.19	-0.05	0.29			
08: The heritage's environment is well maintained.	6.04(1.01)	0.58	-0.03	0.47	-0.01	0.15	0.15	-0.01	0.36			
09: The heritage's environment is congenial.	5.12(1.45)	0.53	-0.02	0.25	0.21	0.17	0.23	0.23	-0.15			
Initial factor 2										3.96	10.43	0.87
10: The heritage's surrounding region has other cultural heritages.	4.92(1.28)	0.08	0.74	0.16	0.07	0.20	0.16	0.20	-0.09			
11: The heritage's surrounding region has natural trails.	4.96(1.32)	0.27	0.69	-0.05	0.15	0.24	0.12	0.14	0.16			
12: The heritage's surrounding attractions are close to other venues.	5.24(1.23)	0.20	0.69	0.13	0.14	0.09	0.32	0.05	0.19			
13: The heritage's surrounding region has historical streets.	5.07(1.35)	0.13	0.69	0.21	0.11	0.08	0.19	0.27	0.00			
14: The heritage's surrounding region has other recreational attractions.	4.63(1.45)	0.05	0.65	-0.08	0.09	0.05	0.17	0.44	0.15			
Initial factor 3										2.12	5.59	0.84
15: Style of heritage architecture.	5.90(1.14)	0.01	0.12	0.80	0.07	0.10	0.01	-0.03	0.02			
16: Beautification of heritage architecture.	5.80(1.15)	0.11	0.14	0.80	0.09	0.13	0.00	-0.03	-0.03			
17: Heritage architecture itself.	5.98(1.06)	0.16	-0.06	0.79	0.11	0.07	0.05	0.04	0.01			
18: History and culture of the heritage architecture.	6.01(1.09)	0.30	0.14	0.62	0.05	0.17	0.05	-0.10	-0.01			
19: Heritage architecture is well preserved.	5.93(1.18)	0.46	-0.03	0.59	0.05	0.06	0.00	0.01	0.24			
Initial factor 4										1.73	4.55	0.86
20: The heritage often holds dynamic art activities.	4.52(1.48)	0.23	0.06	0.14	0.82	0.09	0.12	0.18	-0.01			
21: The heritage often holds static art activities.	4.65(1.42)	0.18	0.10	0.17	0.81	0.04	0.16	0.12	0.01			
22: The heritage often holds creative markets.	4.55(1.63)	0.15	0.18	0.06	0.75	0.10	0.06	0.35	0.12			
23: The heritage's outdoor environment is ideal for walks and exercise.	5.15(1.40)	0.23	0.34	0.01	0.54	0.27	0.08	-0.01	0.44			
Initial factor 5										1.47	3.87	0.87
24: The heritage's environment is simple.	5.51(1.21)	0.25	0.24	0.17	0.12	0.77	0.05	0.03	0.14			
25: The heritage's environment provides a feeling of leisure.	5.55(1.23)	0.35	0.27	0.13	0.06	0.74	0.01	0.13	0.12			
26: The heritage's environment has a literary atmosphere.	5.75(1.13)	0.25	0.01	0.29	0.19	0.66	0.30	0.12	-0.01			
27: The heritage's environment has a historical atmosphere.	6.01(1.04)	0.15	0.04	0.42	0.08	0.62	0.37	-0.03	0.01			
28: The heritage's environment is tranquil.	5.31(1.16)	0.42	0.27	0.07	0.10	0.46	0.25	-0.17	0.09			
29: The heritage's environment has no feeling of oppression.	5.36(1.31)	0.34	0.28	-0.01	0.18	0.39	0.39	0.07	0.11			
Initial factor 6										1.32	3.48	0.78
30: It is safe to walk along the road from home to heritage.	5.53(1.33)	0.11	0.33	0.06	0.06	0.11	0.74	0.05	0.04			
31: The transportation is convenient from home to heritage.	5.20(1.37)	0.13	0.27	0.00	0.24	0.12	0.67	0.23	0.18			
32: The scenery is beautiful along the road from home to heritage.	4.98(1.44)	0.25	0.32	-0.06	0.24	0.15	0.58	0.26	-0.04			
33: The heritage's environment is safe.	5.99(1.14)	0.13	0.06	0.26	-0.10	0.25	0.55	0.06	0.41			

Table 2. Cont.

Items	Mean (SD)	Initial Factor and Factor Loading								Eigenvalue	Variance Explained (%)	Cronbach's $\alpha$
		1	2	3	4	5	6	7	8			
Initial factor 7										1.04	2.75	0.78
34: There is delicious food available along the street from home to heritage.	4.39(1.60)	0.11	0.41	0.01	0.11	−0.02	0.15	0.75	0.09			
35: There is delicious food available at the heritage site.	3.85(1.75)	0.13	0.15	−0.11	0.22	0.04	0.06	0.72	0.21			
36: The heritage's environment is lively.	3.91(1.50)	0.10	0.20	−0.02	0.22	0.07	0.13	0.70	−0.04			
Initial factor 8										1.03	2.71	0.52
37: Parking is convenient at the heritage site.	5.35(1.54)	0.08	0.12	0.05	0.08	0.07	0.32	0.34	0.62			
38: The heritage's environment is suitable for parent–child activities	4.96(1.54)	0.24	0.15	0.06	0.53	0.18	−0.01	0.11	0.55			
Cumulative % of variance (%)	68.34											
Kaiser–Mayer–Olkin (KMO)	0.92											
Bartlett test	8242.88											

Table 3. The results of final step exploratory factor analysis for pull factors of heritage tourism.

Dimensions and Items	Mean (SD)	Dimension and Factor Loading				Eigenvalue	Variance Explained (%)	Cronbach's $\alpha$
		A	B	C	D			
A: Wide nature	5.24(1.31)					6.09	40.62	0.90
A1: The heritage's outdoor environment is wide.	5.13(1.35)	0.81	0.28	0.24	0.13			
A2: The heritage's outdoor environment has several natural elements.	5.37(1.23)	0.81	0.15	0.16	0.12			
A3: You can view the natural landscape.	5.03(1.38)	0.80	0.22	0.21	0.08			
A4: The view of heritage's outdoor landscape is wide.	5.11(1.30)	0.79	0.28	0.25	0.14			
A5: The heritage's outdoor environment is very natural.	5.54(1.29)	0.76	0.06	0.12	0.15			
B: Regional attraction	4.75(1.42)					2.16	14.43	0.83
B1: The heritage's surrounding region has other recreational attractions.	4.63(1.45)	0.16	0.82	0.13	−0.13			
B2: The heritage's surrounding region has historical streets.	5.07(1.35)	0.24	0.78	0.11	0.17			
B3: The heritage's surrounding region has other cultural heritages.	4.92(1.28)	0.22	0.77	0.06	0.15			
B4: There is delicious food available along the street from home to heritage.	4.39(1.60)	0.12	0.74	0.25	−0.05			
C: Art activity	4.57(1.51)					1.49	9.96	0.88
C1: The heritage often holds dynamic art activities.	4.52(1.48)	0.27	0.12	0.88	0.10			
C2: The heritage often holds static art activities.	4.65(1.42)	0.23	0.14	0.87	0.13			
C3: The heritage often holds creative markets.	4.55(1.63)	0.24	0.30	0.78	0.03			
D: Heritage architecture	5.89(1.12)					1.36	9.03	0.83
D1: Style of heritage architecture.	5.90(1.14)	0.10	0.05	0.03	0.89			
D2: Beautification of heritage architecture.	5.80(1.15)	0.23	0.06	0.02	0.85			
D3: Heritage architecture itself.	5.98(1.06)	0.11	−0.02	0.17	0.80			
Cumulative % of variance (%)	74.00							
Kaiser–Mayer–Olkin (KMO)	0.85							
Bartlett test	3066.05							



The final pool of 15 items was attributed to the four clear and meaningful themes: wide nature, regional attraction, art activity, and heritage architecture (Table 3). The first factor was labeled “wide nature” since the five items related to natural landscape and wide view in the heritage’s outdoor space. The second factor, “regional attraction”, applies to the four items related to historical streets, other recreational attractions, cultural heritages, and food service in the surrounding region. The third factor, “art activity”, characterizes the three items related to dynamic and static art activities, and creative markets in heritage. “Heritage architecture” includes three items related to heritage architecture. The mean of importance level was 5.89, 5.24, 5.00, and 4.57 in heritage architecture, wide nature, regional attraction, and art activity, respectively.

#### *4.2. Exploratory Factor Analysis for Push Factors of Adaptive Heritage Reuse*

The primary exploratory factor analysis identified the initial three factors from 18 pull items of heritage tourism (Table 4). Harman’s single-factor test showed that one highest factor explained 49.83% variance indicating lower common method bias. The KMO value was 0.91. Bartlett’s test was significant at a level of 0.000. The cumulative percentage of variance was 66.42%. Cronbach’s  $\alpha$  of three factors ranged from 0.86 to 0.90. For clearing and obtaining meaningful themes, a series of recalculations and deletions reduced the number of items from 18 to 9, while extracting two factors (Table 5). The single item was deleted due to factor loadings below 0.5, while eight items were eliminated on account of cross-loadings greater than 0.3. After a series of deletions, the KMO value of 0.85 and significant Bartlett’s test at a level of 0.000 indicated that the data was adequate for factor analysis. The cumulative percentage of variance reached 68.19%. Cronbach’s  $\alpha$  of four factors ranged from 0.86 to 0.88, indicating good reliability. The factor loadings of all items were greater than 0.50, indicating practical importance.

The final pool of eight items was attributed to two clear and meaningful themes: recreational benefits and long-term values (Table 5). The first factor was labeled “recreational benefits” because the four items related to recreation, including novel and fun experience and social and emotional benefits. Cultural inheritance was attributed to “recreational benefits” because visiting heritage sites may elicit an emotional bonding with heritage through change of cognition. The second factor was labeled “long-term values” because the four items related to long-term benefits, including health, sense of achievement, good life, and work motivation. The mean of importance level was 5.68 and 4.66 in recreational benefits and long-term values, respectively.

**Table 4.** The initial exploratory factor analysis for push factors of heritage tourism

Items	Mean (SD)	Initial Factor and Factor Loading			Eigenvalue	Variance Explained (%)	Cronbach's $\alpha$
		1	2	3			
Initial factor 1					8.97	49.83	0.89
01: Heritage tourism can improve health.	4.75(1.46)	0.80	0.19	0.21			
02: Heritage tourism can provide a sense of achievement.	4.42(1.45)	0.80	0.29	0.11			
03: Heritage tourism can bring a good life.	4.90(1.41)	0.79	0.16	0.24			
04: Heritage tourism can provide work motivation.	4.55(1.41)	0.76	0.29	0.02			
05: Heritage tourism can encourage self-growth.	5.09(1.38)	0.61	0.12	0.55			
06: Heritage tourism can offer reflection.	5.09(1.36)	0.60	0.15	0.49			
Initial factor 2					1.78	9.89	0.90
07: Heritage tourism can improve mood.	5.77(1.15)	0.19	0.76	0.12			
08: Heritage tourism can provide a novel and fun experience.	5.66(1.15)	0.18	0.75	0.32			
09: Heritage tourism can promote interaction with family and friends.	5.50(1.18)	0.22	0.75	0.31			
10: You can share travel experiences with family and friends.	5.64(1.19)	0.23	0.74	0.35			
11: Heritage tourism can offer learning experience.	5.57(1.15)	0.29	0.57	0.49			
12: Heritage tourism offers an escape from the daily complicated life.	5.54(1.26)	0.38	0.55	0.31			
13: Heritage tourism can help cope with stress.	5.25(1.29)	0.54	0.54	0.14			
Initial factor 3					1.21	6.70	0.86
14: Heritage tourism can promote cultural inheritance.	5.84(1.17)	0.17	0.18	0.84			
15: Heritage tourism can help identify heritage culture.	5.89(1.08)	0.03	0.33	0.79			
16: Heritage tourism can verify history in the book.	5.70(1.20)	0.15	0.40	0.62			
17: Heritage tourism can generate precious memories.	5.61(1.16)	0.28	0.45	0.62			
18: Heritage tourism can promote nostalgia.	5.49(1.29)	0.38	0.25	0.59			
Cumulative % of variance (%)	66.42						
Kaiser–Mayer–Olkin (KMO)	0.91						
Bartlett test	4176.84						

**Table 5.** The results of final step exploratory factor analysis for push factors of heritage tourism.

Items	Mean (SD)	Dimension and Factor Loading		Eigenvalue	Variance Explained (%)	Cronbach's $\alpha$
		A	B			
A: Recreational benefits	5.68(1.17)			4.77	52.97	0.86
A1: Heritage tourism can provide a novel and fun experience.	5.66(1.15)	0.84	0.19			
A2: You can share travel experiences with family and friends.	5.64(1.19)	0.83	0.27			
A3: Heritage tourism can promote interaction with family and friends.	5.50(1.18)	0.82	0.26			
A4: Heritage tourism can improve mood.	5.77(1.15)	0.74	0.18			
A5: Heritage tourism can promote cultural inheritance.	5.84(1.17)	0.56	0.26			
B: Long-term values	4.66(1.43)			1.37	15.22	0.88
B1: Heritage tourism can improve health.	4.75(1.46)	0.27	0.84			
B2: Heritage tourism can provide a sense of achievement.	4.42(1.45)	0.25	0.82			
B3: Heritage tourism can bring a good life.	4.90(1.41)	0.27	0.81			
B4: Heritage tourism can provide work motivation.	4.55(1.41)	0.20	0.80			
Cumulative % of variance (%)	68.19					
Kaiser–Mayer–Olkin (KMO)	0.85					
Bartlett test	1741.21					

## 5. Discussion

### 5.1. Pull Factors: Heritage Architecture, Art Activity, Wide Nature, and Regional Attraction

The results of the exploratory factor analysis showed that the common pull factors of heritage tourism were heritage architecture, art activity, wide nature, and regional attraction. The results were similar to the theoretical framework of heritage tourism with adaptive reuse in the study of Tu [11]. “Heritage architecture” is an important common attractiveness factor in heritage tourism and had the highest importance level in the four pull factors. Several studies also supported heritage architecture as the major attractiveness in heritage tourism [13,50], such as rural heritage [9,10] and museum architecture [41]. The classical and traditional heritages often attract people with high cultural capital and background [51]. However, not all elements of heritage architecture produced positive tourist assessments [15]. For example, a study by Choi et al. [52] indicated that conference rooms have the lowest economic contribution in an old parliament house. This study suggested that the style and beautification of heritage architecture should be an important consideration in sustainable heritage management. Another study also revealed that heritage type is an important consideration for tourists [19]. For example, the Japanese style was the most preferred [11], a factor that can be used while determining adaptive reuse.

“Art activity” is a common attractiveness factor in heritage tourism although it had a relatively lower importance level than other pull factors. In general tourism, activities such as cultural events and festivals are considered pull factors [22,31,38]. In certain references, holding various events and having dining establishments produce positive feelings in heritage tourism [52], as do experiential consumption, edutainment, and complementary adaptive reuse [13]. Few studies of heritage tourism highlighted the importance of activity programming, which is generally ignored in heritage management. The revisit motivation of heritage tourism includes “art activities”, such as exhibitions, music, and street art [11]. This study showed that dynamic and static art activities and creative markets are the three pull factors to attract tourists.

“Wide nature” is a common attractiveness feature in heritage tourism, but the importance level is lower than “heritage architecture”. Since the outdoor environment is usually not in the protective range of heritage, it tends to be ignored in heritage management, although it is an important pull factor in heritage [38,41,42]. For example, environmental cues lend meaning and uniqueness and create a competitive advantage for heritage attraction [41]. Some countries focus on the heritages’ natural environment and surrounding beauty [41]. In rural heritages, landscapes are also a strong attraction [42]. Recent literature indicates that greenery can be used for sustainable development of tourism destinations [17]. The heritage’s natural elements induced positive feelings, encouraged activities, and provided a link to history [53]. The surroundings, such as trees, shrubs, and lawns, are also an important factor for visual preference [54]. In addition, heritage trees are considered a significant inheritance and reflect cultural features [55].

Calver and Page [8] posit that the relationship between the culture and nature directly promotes the visitor’s recreational purposes and behavioral intention. This study also supported a similar concept: nature is an important consideration in the behavioral determination of heritage tourism. This study recommends that wide nature should be considered in heritages’ outdoor environment to increase heritage sites’ attractiveness, including increasing expansive natural spaces and elements. In some cases of heritages with adaptive reuse, introducing a natural element helped improve the outdoor environment, which in turn enhanced attractiveness [11] because humans prefer to be close to nature in leisure time [56] and develop positive relationships, including family bonding, cultural experience, exercise, and as a getaway [24].

“Regional attraction” is a common consideration in heritage tourism. Accessibility is an important pull factor in general tourism [19,22,30–33]. Another study also indicated that popular cultural attractions have high accessibility and do not need major cultural elements for a recreational experience [51]. However, the related items of accessibility were deleted in the analyzed process

of this study according to the lower factor loading and high cross-loading. The remaining regional attractions concerned general interests, cultural heritages, historical streets, and food service. Another study suggested that the surroundings of heritage must comply with historic characteristics [54]. Regional tourism activity is the potential of heritage [19]. The effect of accessibility probably was balanced or replaced by the attractiveness level of regional resources [30]. General attractions, cultural heritages, historical streets, and good food also accentuated the significance of a heritage's location. Some other studies also highlighted the importance of a heritage's location [13,41].

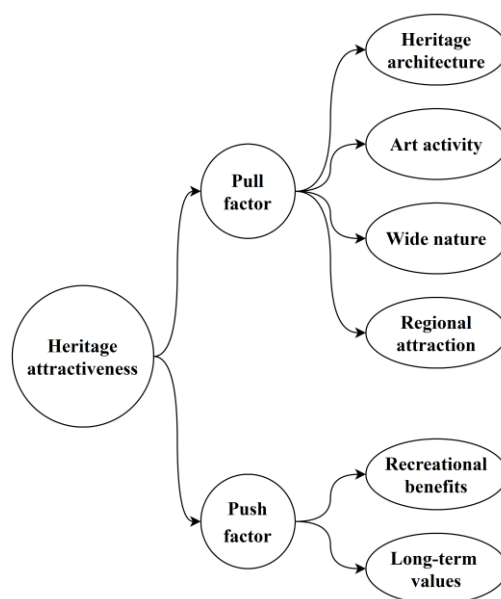
### *5.2. Push Factors: Obtaining Recreational Benefits and Pursuing Long-Term Values*

The results of this study indicated that the push factors of heritage tourism were obtaining recreational benefits and pursuing long-term values. The results were in line with a study by Molinillo and Japutra [51], which indicated that socializing, relaxation, novelty, and cultural exploration were the primary tourism motivations in the cultural attractions of musical types. The mean importance level was higher for obtaining recreational benefits than the mean for pursuing long-term values. Therefore, satisfying recreational benefits was the major consideration in heritage tourism. Popular cultural venues often attract family tourism [51]. Pursuing long-term values included maintaining good health, a sense of achievement, having a good life, and work motivation. These four values reflected the long-term intrinsic motivation that should be considered for satisfaction. Although several heritage managements focused on the protection of architecture, a novel and fun experience, mood relaxation, interaction with family and friends, and cultural inheritance should be provided through landscape planning and activity programming. This study could not confirm the relationship between the pull and push factors. Further studies should verify what pull factors satisfy recreational benefits and long-term values in heritage tourism to provide further recommendations for heritage management.

### *5.3. A Theoretical Framework of Heritage Attractiveness*

The results of this study provide a theoretical framework for heritage attractiveness (Figure 1). Heritage attractiveness covered two latent variables: the pull and push factors. The pull factors covered four latent subvariables (heritage architecture, art activity, wide nature, and regional attractions) while the push factors had two latent subvariables (obtaining recreational benefits and pursuing long-term values). The theoretical framework provided planning principles of heritage management in practice application. The consideration of the aforementioned pull and push factors has several potential benefits: (1) effectively create adaptive reuse of heritage, attract tourists, and reduce wastage of resources; (2) successfully create greater economic value and increase willingness to revisit; and (3) reduce maintenance expenses and achieve the purpose of heritage preservation. The theoretical framework of heritage attractiveness should be further confirmed through confirmatory factor analysis. Figure 1 presents the second-order factor structure with two latent variables and six latent subvariables according to the push–pull theory. However, the framework may be the first-order factor structure. Further studies should use confirmatory factor analysis to test model comparisons and confirm the final factor structure of heritage attractiveness.

The deep insights into “wide nature” should be noticed. Nature contact refers to the biophilia hypothesis which suggests that the human evolution process biologically produces an adaptive response to nature. Human beings have an innate tendency to contact nature, which is an important factor for physical and mental health [57–59]. Biophilia can be used to explain the important role of wide nature in heritage tourism. Heritage tourism is still an activity pursued for recreational benefits. The biophilic design of wide nature provides recreational benefits to satisfy the visitor's recreational requirements. The wide nature in heritage tourism can be planned and designed based on the Kellert and Calabrese principles of biophilic design [58]: sustained contact with nature; inducing personal attachment to specific heritages; connecting relations between heritage and community through cultural plants and nature; and integrating nature and heritage architecture to promote mutual attractiveness.



**Figure 1.** A theoretical framework of heritage attractiveness.

The biophilia hypothesis further posits that the human evolution process creates territory for controlling resources and increasing safety. The familiar and cultural place/landscape reflects territory and familiarity, which increase ecological/cultural attachment and connections [58,59]. Therefore, the biophilia hypothesis can expand the explanation of a heritage site from being just a cultural/historical condition to also a biological one. The factors in this study—heritage architecture, regional cultural attraction, and art activity—reflect ecological/cultural familiarity to increase ecological/cultural attachment and connections that satisfy the visitor’s ecological/cultural requirements and become the important attractiveness features of heritage tourism. The combination of nature and culture is an important principle of the biophilic design in heritage tourism. However, few studies and discussions have explored the biophilic framework of heritage tourism. Further studies should explore heritage tourism using the biophilic hypothesis. Figure 1 is the theoretical framework which provides a potential framework of biophilic heritage tourism that can be evidenced in future studies.

## 6. Conclusions

This study used exploratory factor analysis to examine the common pull and push factors of heritage tourism. The major conclusion is that the pull factors consisted of heritage architecture, art activity, wide nature, and regional attraction. The push factors included achieving recreational benefits and pursuing long-term values. This study provided several applications for reaching sustainable heritage management. The preferred heritage style and beautification can be used to determine the priority for adaptive heritage reuse. Art activity programming can be held to increase the attractiveness of heritage tourism, including dynamic and static art activities, and creative markets. Also, the heritage’s outdoor environment should include wide landscape and natural elements. The priority for adaptive heritage reuse can consider the surrounding general attractions, cultural heritages, historical streets, and the availability of good food. Finally, the tourist’s recreational benefits and long-term values should be taken into consideration in heritage tourism, including novel and fun experience, mental relaxation, interaction with family and friends, cultural inheritance, maintaining good health, a sense of achievement, having a good life, and work motivation.

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## References

- World Heritage. Available online: <https://whc.unesco.org/en/about/> (accessed on 20 July 2020).
- Yung, E.H.; Chan, E.H. Implementation challenges to the adaptive reuse of heritage buildings: Towards the goals of sustainable, low carbon cities. *Habitat Int.* **2012**, *36*, 352–361. [[CrossRef](#)]
- Tweed, C.; Sutherland, M. Built cultural heritage and sustainable urban development. *Landsc. Urban Plan.* **2007**, *83*, 62–69. [[CrossRef](#)]
- Bullen, P.A. Adaptive reuse and sustainability of commercial buildings. *Facilities* **2007**, *25*, 20–31. [[CrossRef](#)]
- Bullen, P.A.; Love, P.E. Adaptive reuse of heritage buildings. *Struct. Surv.* **2011**, *29*, 411–421. [[CrossRef](#)]
- Shehata, W.T.A.; Moustafa, Y.; Sherif, L.; Botros, A. Towards the comprehensive and systematic assessment of the adaptive reuse of Islamic architectural heritage in Cairo. *J. Cult. Herit. Manag. Sustain. Dev.* **2015**, *5*, 14–29. [[CrossRef](#)]
- Dutta, M.; Banerjee, S.; Husain, Z. Untapped demand for heritage: A contingent valuation study of Prinsen Ghat, Calcutta. *Tour. Manag.* **2007**, *28*, 83–95. [[CrossRef](#)]
- Calver, S.J.; Page, S.J. Enlightened hedonism: Exploring the relationship of service value, visitor knowledge and interest, to visitor enjoyment at heritage attractions. *Tour. Manag.* **2013**, *39*, 23–36. [[CrossRef](#)]
- Leanza, P.M.; Porto, S.; Sapienza, V.; Cascone, S.M. A heritage interpretation-based itinerary to enhance tourist use of traditional rural buildings. *Sustainability* **2016**, *8*, 47. [[CrossRef](#)]
- Porto, S.M.; Leanza, P.M.; Cascone, G. Developing interpretation plans to promote traditional rural buildings as built heritage attractions. *Int. J. Tour. Res.* **2012**, *14*, 421–436. [[CrossRef](#)]
- Tu, H.M. The attractiveness of adaptive heritage reuse: A theoretical framework. *Sustainability* **2020**, *12*, 2372. [[CrossRef](#)]
- Bedate, A.; Herrero, L.C.; Sanz, J.Á. Economic valuation of the cultural heritage: Application to four case studies in Spain. *J. Cult. Herit.* **2004**, *5*, 101–111. [[CrossRef](#)]
- McKercher, B.; Ho, P.S.; du Cros, H. Attributes of popular cultural attractions in Hong Kong. *Ann. Tour. Res.* **2004**, *31*, 393–407. [[CrossRef](#)]
- Gravari-Barbas, M. Tourism as a heritage producing machine. *Tour. Manag. Perspect.* **2018**, *25*, 173–176. [[CrossRef](#)]
- Alazaizeh, M.M.; Hallo, J.C.; Backman, S.J.; Norman, W.C.; Vogel, M.A. Value orientations and heritage tourism management at Petra Archaeological Park, Jordan. *Tour. Manag.* **2016**, *57*, 149–158. [[CrossRef](#)]
- Poria, Y.; Butler, R.; Airey, D. The core of heritage tourism. *Ann. Tour. Res.* **2003**, *30*, 238–254. [[CrossRef](#)]
- Tang, C.; Zheng, Q.; Ng, P. A study on the coordinative green development of tourist experience and commercialization of tourism at cultural heritage sites. *Sustainability* **2019**, *11*, 4732. [[CrossRef](#)]
- Huete-Alcocer, N.; López-Ruiz, V.R.; Grigorescu, A. Measurement of satisfaction in sustainable tourism: A cultural heritage site in Spain. *Sustainability* **2019**, *11*, 6774. [[CrossRef](#)]
- Li, Y.; Lo, R.L.B. Applicability of the market appeal—Robusticity matrix: A case study of heritage tourism. *Tour. Manag.* **2004**, *25*, 789–800. [[CrossRef](#)]
- Dann, G.M. Anomie, ego-enhancement and tourism. *Ann. Tour. Res.* **1977**, *4*, 184–194. [[CrossRef](#)]
- Prayag, G.; Ryan, C. The relationship between the ‘push’ and ‘pull’ factors of a tourist destination: The role of nationality—an analytical qualitative research approach. *Curr. Issues Tour.* **2011**, *14*, 121–143. [[CrossRef](#)]
- Uysal, M.; Li, X.; Sirakaya-Turk, E. Push-pull dynamics in travel decisions. In *Handbook of Hospitality Marketing Management*; Oh, H., Ed.; Butterworth-Heinemann: Okafor, UK, 2008; pp. 413–439.
- Lee, G.; O’Leary, J.T.; Lee, S.H.; Morrison, A. Comparison and contrast of push and pull motivational effects on trip behavior: An application of a multinomial logistic regression model. *Tour. Anal.* **2002**, *7*, 89–104. [[CrossRef](#)]
- Uysal, M.; Jurovski, C. Testing the push and pull factors. *Ann. Tour. Res.* **1994**, *21*, 844–846. [[CrossRef](#)]

25. Loulanski, T.; Loulanski, V. The sustainable integration of cultural heritage and tourism: A meta-study. *J. Sustain. Tour.* **2011**, *19*, 837–862. [[CrossRef](#)]
26. Haig, B.D. Exploratory factor analysis, theory generation, and scientific method. *Multivar. Behav. Res.* **2005**, *40*, 303–329. [[CrossRef](#)]
27. Williams, B.; Onsmann, A.; Brown, T. Exploratory factor analysis: A five-step guide for novices. *Australas. J. Paramed.* **2010**, *8*, 1–13. [[CrossRef](#)]
28. Crompton, J.L. Motivations for pleasure vacation. *Ann. Tour. Res.* **1979**, *6*, 408–424. [[CrossRef](#)]
29. Fluker, M.R.; Turner, L.W. Needs, motivations, and expectations of a commercial whitewater rafting experience. *J. Travel Res.* **2000**, *38*, 380–389. [[CrossRef](#)]
30. Celata, F. *Geographic Marginality, Transport Accessibility and Tourism Development*; Global Tourism and regional competitiveness; Patron: Bologna, Italy, 2007.
31. Hanqin, Z.Q.; Lam, T. An analysis of Mainland Chinese visitors' motivations to visit Hong Kong. *Tour. Manag.* **1999**, *20*, 587–594. [[CrossRef](#)]
32. Kim, S.S.; Lee, C.K. Push and pull relationships. *Ann. Tour. Res.* **2002**, *29*, 257–260. [[CrossRef](#)]
33. Wendel, H.E.W.; Zarger, R.K.; Mihelcic, J.R. Accessibility and usability: Green space preferences, perceptions, and barriers in a rapidly urbanizing city in Latin America. *Landsc. Urban Plan.* **2012**, *107*, 272–282. [[CrossRef](#)]
34. Fakeye, P.C.; Crompton, J.L. Image differences between prospective, first-time, and repeat visitors to the Lower Rio Grande Valley. *J. Travel Res.* **1991**, *30*, 10–16. [[CrossRef](#)]
35. Hu, Y.; Ritchie, J.B. Measuring destination attractiveness: A contextual approach. *J. Travel Res.* **1993**, *32*, 25–34.
36. Kim, S.S.; Lee, C.K.; Klenosky, D.B. The influence of push and pull factors at Korean national parks. *Tour. Manag.* **2003**, *24*, 169–180. [[CrossRef](#)]
37. Morrison, A.M. *Hospitality and Travel Marketing*, 2nd ed.; Delmar Publishers: Albany, NY, USA, 1996.
38. Bogari, N.B.; Crowther, G.; Marr, N. Motivation for domestic tourism: A case study of the Kingdom of Saudi Arabia. *Tour. Anal.* **2003**, *8*, 137–141. [[CrossRef](#)]
39. Inskip, E. *Tourism Planning: An Integrated and Sustainable Development Approach*; Van Nostrand Reinhold: New York, NY, USA, 1991.
40. Swarbrooke, J.; Page, S.J. *Development and Management of Visitor Attractions*; Butterworth-Heinemann: Oxford, UK, 2012.
41. Bonn, M.A.; Joseph-Mathews, S.M.; Dai, M.; Hayes, S.; Cave, J. Heritage/cultural attraction atmospherics: Creating the right environment for the heritage/cultural visitor. *J. Travel Res.* **2007**, *45*, 345–354. [[CrossRef](#)]
42. Tassinari, P.; Torreggiani, D.; Benni, S.; Dall'Ara, E. Landscape quality in farmyard design: An approach for Italian wine farms. *Landsc. Res.* **2013**, *38*, 729–749. [[CrossRef](#)]
43. Su, D.N.; Nguyen, N.A.N.; Nguyen, Q.N.T.; Tran, T.P. The link between travel motivation and satisfaction towards a heritage destination: The role of visitor engagement, visitor experience and heritage destination image. *Tour. Manag. Perspect.* **2020**, *34*, 100634. [[CrossRef](#)]
44. Barton, J.; Hine, R.; Pretty, J. The health benefits of walking in greenspaces of high natural and heritage value. *J. Integr. Environ. Sci.* **2009**, *6*, 261–278. [[CrossRef](#)]
45. DeVellis, R.F. *Scale Development: Theory and Applications*; Sage publications: Thousand Oaks, CA, USA, 2016.
46. Yong, A.G.; Pearce, S. A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutor. Quant. Methods Psychol.* **2013**, *9*, 79–94. [[CrossRef](#)]
47. Hair, J.F.; Black, W.C.; Babin, B.J.; Anderson, R.E. *Multivariate Data Analysis*, 7th ed.; Pearson Prentice Hall: Upper Saddle River, NJ, USA, 2014.
48. Chang, S.J.; van Witteloostuijn, A.; Eden, L. From the editors: Common method variance in international business research. *J. Int. Bus. Stud.* **2010**, *41*, 178–184. [[CrossRef](#)]
49. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.Y.; Podsakoff, N.P. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* **2003**, *88*, 879. [[CrossRef](#)] [[PubMed](#)]
50. Gholitabar, S.; Alipour, H.; Costa, C.M.M.D. An empirical investigation of architectural heritage management implications for tourism: The case of Portugal. *Sustainability* **2018**, *10*, 93. [[CrossRef](#)]
51. Molinillo, S.; Japutra, A. Factors influencing domestic tourist attendance at cultural attractions in Andalusia, Spain. *J. Dest. Mark. Manag.* **2017**, *6*, 456–464. [[CrossRef](#)]



52. Choi, A.S.; Ritchie, B.W.; Papandrea, F.; Bennett, J. Economic valuation of cultural heritage sites: A choice modeling approach. *Tour. Manag.* **2010**, *31*, 213–220. [[CrossRef](#)]
53. Lai, L.Y.; Said, I.; Kubota, A. The roles of cultural spaces in Malaysia's historic towns: The case of Kuala Dungun and Taiping. *Procedia Soc. Behav. Sci.* **2013**, *85*, 602–625. [[CrossRef](#)]
54. Najd, M.D.; Ismail, N.A.; Maulan, S.; Yunos, M.Y.M.; Niya, M.D. Visual preference dimensions of historic urban areas: The determinants for urban heritage conservation. *Habitat Int.* **2015**, *49*, 115–125. [[CrossRef](#)]
55. Lai, P.Y.; Jim, C.Y.; Da Tang, G.; Hong, W.J.; Zhang, H. Spatial differentiation of heritage trees in the rapidly-urbanizing city of Shenzhen, China. *Landsc. Urban Plan.* **2019**, *181*, 148–156. [[CrossRef](#)]
56. Chen, H.M.; Tu, H.M.; Ho, C.I. Understanding biophilia leisure as facilitating well-being and the environment: An examination of participants' attitudes toward horticultural activity. *Leis. Sci.* **2013**, *35*, 301–319. [[CrossRef](#)]
57. Kellert, S.R.; Wilson, E.O. *The Biophilia Hypothesis*; Island Press: Washington, DC, USA, 1993.
58. Kellert, S.R.; Calabrese, E.F. *The Practice of Biophilic Design*; Terrapin Bright LLC: London, UK, 2015.
59. Kellert, S.R. *Building for Life: Designing and Understanding the Human-Nature Connection*; Island Press: Washington, DC, USA, 2012.



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